



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/885,130	06/21/2001	Thomas Muller	367.40252X00	4700
20457	7590	09/21/2004	EXAMINER	
ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-9889			MEEK, JACOB M	
			ART UNIT	PAPER NUMBER
			2637	

DATE MAILED: 09/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/885,130	Applicant(s) MULLER ET AL.	
	Examiner Jacob Meek	Art Unit 2637	<i>AC</i>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06/21/2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>6/01, 4/02, 9/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Objections

2. Claim 22 objected to because of the following informalities: "claimed in any one of claims 16". Examiner interprets this to mean as claimed in claim 16. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of

2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1, 2, 6, 9, 13 - 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Smolentzov et al (US Patent 6,788,656).

With regard to Claim 1, Smolentzov teaches a method used with a transmitter (See Figure 14, 1401) with means for reading a real time clock (Figure 1, 1402); and means for transmitting the real time clock value (see Figure 14, 1403 and Column 12, lines 38 –50).

With regard to Claim 2, Smolentzov teaches a method used with transmitter for calculating the real time clock value at the first instance by adding the time difference between the first instance and the identified instance to the real time clock value at the identified instance to obtain the real time clock value for the first instance (see Figure 10 and Column 10, line 46 – Column 11, line 3).

With regard to Claim 6, Smolentzov teaches a method used with transmitter comprising a synchronization controller for maintaining the common time reference (see Figure 10, Column 11, lines 4 – 7).

With regard to claim 9, Smolentzov teaches the limitations of Claim 1 above, along with the use of the Bluetooth standard (Figure 1, Column 12, lines 38 – 50), and the use of a common time reference (See Figure 10, reference 1005).

With regard to claim 13, Smolentzov teaches the limitations of Claim 1 above along with an interface for connection to a Real Time Clock or Real Time application (see Column 12, lines 38 – 50).

With regard to Claim 14 Smolentzov teaches the limitations of Claim 1 above along with an arrangement for asynchronous transmission real clock time value and of the identification of the first instance (see Column 2, lines 44 – 60).

With regard to Claim 15 Smolentzov teaches the limitations of Claim 1 above along with the use of media devices (see Column 1, lines 21 – 26). Examiner interprets this list to include devices claimed by applicant.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 16, 17, 22, 31 – 35, and 37 - 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smolentzov et al (US Patent 6,788,656).

With regard to claim 16, Smolentzov teaches a transmitter as described in Claim 1. Smolentzov fails to teach a receiver for the reception of this real time clock, and writing of the clock value, however Smolentzov states that it is required for the elements of the network to be time aligned (Column 2, line 66 – column 3, line 6, column 12, lines 15 – 31, and Figure 14, 1403). Therefore it would be required to have a receiver capable of processing the transmitted real time clock information to achieve synchronization in order to have an operable network.

With regard to claim 17, Smolentzov teaches a transmitter as described in Claim 2. Smolentzov fails to teach the details of the receiver necessary for the correction of this real time data. Smolentzov states that it is required for the elements of the network to be time

aligned (Column 2, line 66 – column 3, line 6, column 12, lines 15 – 31, and Figure 14, 1403). Therefore it would be required to have a receiver capable of processing the transmitted information in order to have an operable network.

With regard to claim 22, Smolentzov teaches a transmitter described in Claim 6. Smolentzov fails to teach the details of the receiver containing a synchronization controller. Smolentzov does state that it required for the elements of the network to be time aligned (Column 2, line 66 – column 3, line 6, column 12, lines 15 – 31, and Figure 14, 1403). Therefore it would be required to have a receiver containing a synchronization controller in order to have an operable network.

With regard to Claim 31, Smolentzov teaches a transmitter described in Claim 13 above. Smolentzov fails to teach the details of the receiver with an interface for connection to a Real Time Clock or Real Time application (see Column 12, lines 38 – 50). Smolentzov does state that it required for the elements of the network to be time aligned (Column 2, line 66 – column 3, line 6, column 12, lines 15 – 31, and Figure 14, 1403). Therefore it would be required to have a receiver containing this functionality in order to have an operable network.

With regard to Claim 32, Smolentzov teaches a transmitter described in Claim 14 above. Smolentzov fails to teach the details of the receiver arrangement for asynchronous transmission real clock time value and of the identification of the first instance (see Column 2, lines 44 – 60). Smolentzov does state that it required for the elements of the network to be time aligned (Column 2, line 66 – column 3, line 6, column 12, lines 15 – 31, and Figure 14, 1403). Therefore it would be required to have a receiver containing this functionality in order to have an operable network.

With regard to Claim 33, Smolentzov teaches a transmitter described in Claim 15 above. Smolentzov fails to teach the details of the receiver along with the use of media devices (see

Column 1, lines 21 – 26). Examiner interprets this list to include devices claimed by applicant. It would have been obvious to incorporate a receiver in these devices to facilitate communications.

With regard to Claim 34, the limitations of the transceiver are taught in the combination of Claims 1 (transmitter) and 16 (receiver). This combination is taught by in Figure 1, references 101 and 103 that show two-way communications and examiner interprets to be a transceiver. Smolentzov does not describe a “distal” clock. Examiner notes that “Distal” is defined as “being away from point of attachment.” In applicant’s invention this would correspond to the transmitting entity (Master) distributing timing and is therefore considered to be the master clock.

With regard to Claim 35, the limitations of the transceiver are taught in Claim 2 (transmitter) and Claim 17 (receiver). This combination is taught by in Figure 1, references 101 and 103 that show two-way communications and examiner interprets to be a transceiver. Smolentzov does not describe a “distal” clock. Examiner notes that “Distal” is defined as “being away from point of attachment.” In applicant’s invention this would correspond to the transmitting entity (Master) distributing timing and is therefore considered to be the master clock.

With regard to Claim 37, the limitations and motivations as taught in claims 13 (transmitter) and 31 (receiver). The transceiver is taught in Figure 1, references 101 and 103 that show two-way communications and examiner interprets to be a transceiver.

With regard to Claim 38, this method is carried out on the transceiver described by claim 37 and incorporates the limitations of the above referenced claims.

With regard to Claim 39, this method is carried out on the transceiver as described in Claim 35.

With regard to Claim 40, this network would be formed by the transceivers as taught in claim 34 and therefore has been addressed by the discussion of Claim 34 above.

5. Claims 7, 8, 10 – 12, 23 – 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smolentzov et al (US Patent 6,788,656) in view of Haartsen.

With regard to Claim 7, Smolentzov teaches the limitations of Claim 1 above and the use of the Bluetooth standard (Figure 1, Column 12, lines 38 – 50). Smolentzov fails to teach use of the Link Level synchronization for common time reference. Haartsen teaches the need for a Master node to provide synchronization messages (see page 110, 2nd paragraph (mid page)). It would have been obvious to one of ordinary skill of the art to utilize existing Bluetooth protocol functions to convey synchronizations messages as the use of clock offsets is well discussed in Bluetooth specifications.

With regard to Claim 8, Smolentzov teaches the limitations of Claim 1 above and the use of the Bluetooth standard. Smolentzov fails to teach use of the Link Manager message for identification of real time clock value and ID of first instance. Haartsen teaches the need for a Master node to provide synchronization messages (see page 110, 2nd paragraph (mid page)). It would have been obvious to one of ordinary skill of the art to utilize existing Bluetooth protocol functions to convey synchronizations messages.

With regard to Claim 10, Smolentzov teaches the limitations of Claim 1 above. Smolentzov fails to teach the instance being identified by a frame/slot number. Haartsen teaches that instances are identified using a frame and slot number (See page 108, Dynamic slot structure 1st paragraph and page 109, Packet transmission). Because these are defined as part of the Bluetooth standard it would be inherent to incorporate this functionality into a transmitter for a Bluetooth application.

With regard to claim 11, see the limitations and motivations of Claim 10 above.

Smolentzov fails to teach the instance being predetermined within a frame/slot. Haartsen teaches that slots and frames are assigned in a predetermined method as connections are established (See page 108, Dynamic slot structure 1st paragraph and page 109, Packet transmission).

With regard to claim 12, see the limitations and motivations of Claim 11 above.

Smolentzov fails to teach the instance is determined by the transmission of a message. Haartsen teaches that slots and frames are assigned in a predetermined method as connections are established at a particular instance in time (See page 108, Dynamic slot structure 1st paragraph and page 109, Packet transmission).

With regard to claim 23, Smolentzov teaches the limitations of Claim 22. Smolentzov fails to teach the details of the synchronization controller with correlation means for identifying access codes preceding the payload of data packets. Haartsen teaches this as a fundamental part of the Bluetooth requirements (See Synchronization, 2nd paragraph, page 111). It would be inherent to have a receiver containing this function in order to have an operable network.

With regard to claim 24, Smolentzov teaches the limitations of Claim 23 above.

Smolentzov fails to teach the updating of synchronization as packets are received. Haartsen teaches this as a fundamental part of the Bluetooth requirements (See Synchronization, 2nd paragraph, page 111). It would be inherent to have a receiver containing this function in order to have an operable network.

With regard to claim 25, Smolentzov teaches the limitations of Claim 22 above.

Smolentzov fails to teach the synchronization controller providing bit level synchronization. Haartsen teaches this as a fundamental part of the Bluetooth requirements (See

Synchronization, 2nd paragraph, page 111). The synchronization of the Slave's timing reference to the master's timing reference in a system operation in a serial bit stream makes the bit-level synchronization of this system and inherent property as the two clocks are locked to one another. It would be inherent to have a receiver containing this function in order to have an operable network.

With regard to Claim 26, Smolentzov and Haartsen teach the limitations and motivations for a transmitter in Claim 7 above. Smolentzov fails to teach the details of the receiver, however it would be required to have a receiver performing this operation in order to have an operable system. Motivation to combine described as above in Claim 22.

With regard to Claim 27, Smolentzov teaches the limitations of a transmitter in Claim 8 above. Smolentzov fails to teach the details of the receiver however it would be required to have a receiver performing this operation in order to have an operable system. Motivation to combine described as above in Claim 22.

With regard to Claim 28, the limitations of a transmitter are taught in Claim 10. It would be required to have a receiver capable of processing the transmitted slots/frames/instances in order to have an operable network.

With regard to Claim 29, the limitations of a transmitter are taught in Claim 11. It would be required to have a receiver capable of processing the transmitted slots/frames/instances in order to have an operable network.

With regard to Claim 30, the limitations of a transmitter are taught in Claim 12. It would be required to have a receiver capable of processing the transmitted slots/frames/instances in order to have an operable network.

6. Claims 3 - 5, 18 – 21, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smolentzov et al (US Patent 6,788,656) in view of Geller et al (GB 2278519A).

With regard to Claim 3, the limitations of the transmitter as taught in Claim 1. Smolentzov does not discuss the first instance is in the past at the moment of transmission. Geller describes a mechanism for synchronizing the clock backward (see page 7, line 24 – page 8, line 2). It would have been obvious to one of ordinary skill in the art to combine Smolentzov's system with Geller's system to produce a system that would be capable of having high accuracy time synchronization (See Geller, abstract).

With regard to Claim 4, the limitations of the transmitter as taught in Claim 1. Smolentzov does not discuss the first instance is in the future at the moment of transmission. Geller describes a mechanism for synchronizing the clock forward (see page 8, lines 3 – 13). Motivation to combine as taught in Claim 3 above.

With regard to Claim 5, limitations of Claim 1 as taught above. Smolentzov does not discuss the identified instance and first instance being simultaneous. Geller describes a mechanism for synchronizing the clock at a common instance (see page 8, lines 3 – 13). Motivation to combine as taught in Claim 3 above.

With regard to Claim 18, limitations and motivation as taught in claims 3 and 16 above.

With regard to Claim 19, limitations as taught in claim 16 above. Smolentzov fails to teach calculation of time difference. Geller teaches a method for calculating the clock value (see page 6, lines 20 – 37). Motivation to combine as taught in Claim 3 above.

With regard to Claim 20, limitations and motivation as taught in claims 5 and 16 above.

With regard to Claim 21, limitations as taught in claim 16 above. Smolentzov fails to teach determining time instance. Geller teaches a method for determining the clock value (see page 6, lines 20 – 37). Motivation to combine as taught in Claim 3 above.

With regard to Claim 36, limitations as taught in Claims 34 and 35, with the additional limitations as described in Claims 3 and 19. This combination is taught by in Figure 1, references 101 and 103 that show two-way communications and examiner interprets this to be a transceiver. Motivation to combine as discussed in referenced claims.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacob Meek whose telephone number is (571)272-3013. The examiner can normally be reached on 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571)272-2988. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JMM

 5/17/04
WE
TEMESGHEN GHEBRETINSAE
PRIMARY EXAMINER